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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/541,837 | 07/12/2005 | Uno Henningsson | P16589-US1 | 6125 |
| 27045 | 7590 | 03/06/2008 | | |
| ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024 | | | EXAMINER BOES, TERENCE | |
| | | | ART UNIT 3682 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/541,837

Applicant(s)

HENNINGSSON ET AL.

Examiner

TERENCE BOES

Art Unit

3682

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11, 13-21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 13-21 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Request for Continued Examination

1. The request filed on 01/15/2008 for continued examination (RCE) is accepted and a continued prosecution application has been established. An action on the RCE follows.

Information Disclosure Statement

2. The information disclosure statement filed July 12 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Specifically, it appears as if GB 0520420 has not been submitted.

Claim Rejections - 35 USC § 103

3. Claims 1-9, 11, 13-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morales US 4,954,032 in view of Henningsson et al. US 6,670,869.

Morales discloses:

- a cavity (cavity is shown at 12 in figure 5) for insertion of a threaded axle (9) along which the screw arrangement is movably arranged,
- a first resilient part (25) to eliminate an axial allowance
- a second resilient part (upper instance of 21) to eliminate a radial allowance,

- wherein the screw arrangement consists of a first part (3) and a second part (2) that are connectable to each other.
- wherein the first part can be inserted into the second part (see figures 4 and 5).
- wherein the first resilient part comprises a separate spring (25 is a spring).
- wherein the first resilient part comprises an integrated part of the first part of the screw arrangement (3 and 25 are integrated in that they function together, see figures 4 and 5).
- wherein the second resilient part comprises at least one resilient tongue (21 is a resilient tongue) that is arranged in parallel to the screw arrangement axis for insertion into corresponding grooves (upper instance of 28) of the second part of the screw arrangement.
- wherein an end of the resilient tongue is equipped with a bulge (upper instance of 22) to secure a firm connection of the first and second part of the screw arrangement.
- wherein the first screw arrangement part comprises one or more convex protrusions (lower instance of 22) and the second screw part comprises corresponding grooves (28) for insertion of the first part of the screw arrangement into the second part of the screw arrangement.
- Wherein said second part (2) further comprising a threaded means for fastening of a tuner object (8 is capable of fastening a tuner object, also threads 7 are capable of fastening a tuner object).

Morales does not disclose stationary semi-spheres.

Henningsson et al. teach stationary semi-spheres (28) for the purpose of eliminating a radial tolerance (C8/L60-65) and/ or for the purpose of optimizing a contact surface (C6/L30-40).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Morales and provide semi-spheres, as taught by Henningsson et al., for the purpose of eliminating a radial tolerance and/or for the purpose of optimizing a contact surface.

Morales in view of Henningsson et al. disclose the claimed invention except for six semi-spheres following one turn of a threaded axle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide 6 semi-spheres following one turn of a threaded axle, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 13-21 and 23

- a cavity (cavity is shown at 12 in figure 5) for insertion of a threaded axle (9) along which the screw arrangement is movably arranged
- a first resilient part (25) to eliminate an axial allowance
- a second resilient part (upper instance of 21) to eliminate a radial allowance,

- wherein the screw arrangement consists of a first part (3) and a second part (2) that are connectable to each other.
- wherein the first part can be inserted into the second part (see figures 4 and 5).
- wherein the first resilient part comprises a separate spring (25 is a spring).
- wherein the first resilient part comprises an integrated part of the first part of the screw arrangement (3 and 25 are integrated in that they function together, see figures 4 and 5).
- wherein the second resilient part comprises at least one resilient tongue (21 is a resilient tongue) that is arranged in parallel to the screw arrangement axis for insertion into corresponding grooves (upper instance of 28) of the second part of the screw arrangement.
- wherein an end of the resilient tongue is equipped with a bulge (upper instance of 22) to secure a firm connection of the first and second part of the screw arrangement.
- wherein the first screw arrangement part comprises one or more convex protrusions (lower instance of 22) and the second screw part comprises corresponding grooves (28) for insertion of the first part of the screw arrangement into the second part of the screw arrangement.
- the screw arrangement comprising a threaded means for fastening of a tuner object (8 is capable of fastening a tuner object).

Morales does not disclose stationary semi-spheres.

Henningsson et al. teach stationary semi-spheres (28) for the purpose of eliminating a radial tolerance (C8/L60-65) and/or for the purpose of optimizing a contact surface (C6/L30-40).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Morales and provide semi-spheres, as taught by Henningsson et al., for the purpose of eliminating a radial tolerance and/or for the purpose of optimizing a contact surface.

Morales in view of Henningsson et al. disclose the claimed invention except for six semi-spheres following one turn of a threaded axle. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide 6 semi-spheres following one turn of a threaded axle, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Response to Arguments

4. Applicant's arguments filed 01/15/2008 have been fully considered but they are not persuasive.
5. Applicant argues " The Applicant has submitted an Information Disclosure Statement which includes a legible copy of cited foreign patent document GB 1520420A to comply with 37 CFR 1.98(a)(2) as requested in First Office Action dated 7/27/06".

In response, a legible copy of cited foreign patent document GB 1520420A has not been received.

6. Applicant argues "The Applicant respectfully submits that Morales and Henningsson taken alone or combined fail to teach or suggest the following claimed limitation "the screw cavity at its inside is equipped with stationary semi-spheres that follow the turn of the threads of the threaded axle".

In response, Morales discloses following screw threads (6-8).

Henningsson teaches semi-spheres (28) for the purpose of optimizing a contact surface (C6/L30-40).

7. Applicant argues "The first spindle part 25 is clearly not a "screw cavity" and the radially-protruding studs 28 are clearly not located inside a "screw cavity" ".

In response, Morales discloses a screw cavity (see figure 5, screw cavity is shown at reference character 12). Additionally, the radially inwardly protruding studs (28, see figure 9) of Henningsson would replace the threads (6 and or 7 of Morales), and thus be located inside a screw cavity.

8. Applicant argues "Thus, the radially-protruding studs 28 clearly do not "follow the turn of the threads of the threaded axle" as the claimed stationary semi-spheres do in the amended independent Claim 1 ".

In response, the radially-protruding studs 28 taught by Henningsson, when substituted for the threads (6 and/or 7 of Morales), Follow the turn of the threads of a threaded axle.

9. Applicant argues "Furthermore, the Applicants respectfully submit that the Examiner's motivation for combining Morales and Henningsson in the first place is misplaced. The Examiner stated that "[i]t would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Morales and provide semi-spheres, as taught by Henningsson et al., for the purpose of eliminating a radial tolerance." Applicant respectfully submits that it is not the purpose of the claimed stationary semi- spheres to eliminate radial tolerance. Instead, the purpose of the claimed stationary semi-spheres is to provide "a small touching surface between semi-spheres and threads in order to achieve a low friction while said touching surface at the same time must be sufficiently large to stand pressures when moving the screw arrangement including, e.g., a tuner object, along the~ threaded axis" (see paragraph [0018] in the pending patent application). "

In response to applicant's argument that "...it is not the purpose of the claimed stationary semi- spheres to eliminate radial tolerance. Instead, the purpose of the claimed stationary semi-spheres is to provide a small touching surface between semi-spheres and threads in order to achieve a low friction while said touching surface at the same time must be sufficiently large to stand pressures when moving the screw arrangement", the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Additionally, the examiner agrees with applicant that Henningsson also teaches providing semi-spheres 28 for the purpose of optimizing a contact surface (C6/L30-40).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TERENCE BOES whose telephone number is (571)272-4898. The examiner can normally be reached on Monday - Friday 9:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3682

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. B./

Examiner, Art Unit 3682

2/26/08

/Richard WL Ridley/

Supervisory Patent Examiner, Art Unit 3682